

# **Remedial Action Plan Fact Sheet**

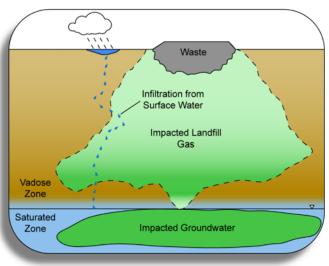
# Maricopa County presents the **Cave Creek Landfill Remedial Action Plan**

## The next step in cleaning up groundwater underlying the landfill...

Maricopa County has issued a revised Remedial Action Plan (RAP) for groundwater impacted by waste in Cave Creek Landfill. The contaminated groundwater is not a drinking water source but the RAP presents potential corrective measures and describes Maricopa County's preferred remedy based on our evaluation of alternatives.

Preparation of the RAP is part of the final remedy selection

process for groundwater restoration which includes public participation. This Fact Sheet gives you summary information regarding the site and the RAP. Maricopa County encourages public comment during the public comment period. See the back page of this Fact Sheet for more information regarding how you can be involved. New information received during a public meeting presenting the RAP could result in changes or modification to the preferred remedy. Maricopa County and the Arizona Department of Environmental Quality (ADEQ) will work together to choose the final cleanup remedy after all comments have been considered.



# Cave Creek Carefree Cave Creek Landfill 101 51

#### Site Background

Cave Creek Landfill is located approximately one half mile south of Carefree Highway and two miles west of Cave Creek Road. The property consists of two landfill regions: the Old Landfill located in the northeastern portion of the site and the New Landfill located in the central portion of the site. Cave Creek Landfill began receiving waste at the Old Landfill in 1965. Operations transitioned to the New Landfill in 1984 and ceased in 1998. While operational, Cave Creek Landfill received residential and commercial municipal solid waste (MSW).

There has been routine monitoring conducted since closure to evaluate if waste placed in Cave Creek Landfill has impacted the environment. Based on the results of this ongoing monitoring, trichloroethene (TCE), a common solvent, has been detected in both the soil vapor (i.e., the gas portion of the soil matrix) under the landfill and

groundwater which is located more than 600 feet below the surface. Although it is highly unlikely that people will be exposed to TCE contamination deep below the landfill, TCE concentrations in groundwater at the site exceed the Arizona Aquifer Water Quality Standard for this compound which is 5 micrograms per liter. To comply with Arizona law and the requirements of the Resource Conservation and Recovery Act (RCRA), Maricopa County will clean up the TCE contamination under Cave Creek Landfill with oversight by ADEQ.

Maricopa County currently operates the Cave Creek Waste Transfer Station at the landfill site. The transfer station is open to the public and receives both trash and recyclables which are temporarily stored in bins and then sent to appropriate facilities. TCE contamination at the site does not impact these operations.

#### Remedial Alternative Development and Evaluation

As part of the RAP assessment, we looked at the effectiveness of potential corrective measures that meet the requirements of RCRA and address the site-specific objectives of protecting human health and the environment. Based on a preliminary screening analysis, two retained alternatives are capable of meeting cleanup goals:

- An On-Site Extraction Remedy. This remedy includes an on-site groundwater pump and treat (P&T) system combined with monitored natural attenuation (MNA) for TCE plume clean up and soil vapor extraction (SVE) from the deep soils underlying the landfill to control the source of TCE contamination to the groundwater.
- An Off-Site Extraction Remedy. This remedy includes an off-site groundwater P&T system located south of the site for TCE plume clean up and SVE for source control.

### **Tentatively-Selected Remedy**

Maricopa County's preferred remedy for the Site is the On-Site Extraction Remedy. We came to this conclusion after comparing the practicability, risk, cost, and benefit or value of each alternative. The Off-Site Extraction Remedy was considered more effective in containing the migration of TCE impacted groundwater but it would not be as practicable as the On-Site Extraction Remedy because the P&T system would have to be built on property that is not owned by Maricopa County. The On-Site Extraction Remedy is considered effective in controlling the migration of contaminated groundwater without this logistical concern.

Physical components of the On-Site Extraction Remedy (see the figure to the right) consist principally of a new P&T system located in the southern portion of the property. This includes a groundwater extraction well, piping, groundwater treatment

equipment, and an injection well to recharge treated water back into the aquifer. There will also be one new offsite monitoring well to test any impacted groundwater that may not be contained by the P&T system and a soil vapor extraction system located in the northern portion of the site. The SVE system includes multiple vapor extraction wells and air treatment equipment. This cleanup operation is expected to last 30 years.

# Air Monitoring/ Extraction Well Groundwater Monitoring/ Extraction Well Old Cave Creek - System Piping Landfill Cave Creek Landfill Transfer Station **SVE Treatment** System Location New Cav Creek Landfill **Dove Valley Ranch** Community MountainPKmy Groundwater **Treatment** System Location New Injection Well New Extraction City of Phoenix Monitoring Sonoran Well Preserve Alternate New Monitoring Well

#### For more information:

The RAP and supporting documents may be viewed at the Maricopa County Cave Creek Landfill document repository website:

http://www.maricopa.gov/groundwater

The RAP is also available for review during the comment period at:

Desert Broom Public Library 29710 N. Cave Creek Rd. Phoenix, Arizona 85331

Comments can also be provided at the Public Meeting

#### How you can participate:

E-mail written comments by September 15, 2015 to:

Fields Moseley
Maricopa County Communications Director
cavecreeklandfill@mail.maricopa.gov

30-Day Public Comment Period: August 17, 2015 through September 15, 2015

Public Meeting:
September 1, 2015 at 6 pm
Community Room of the
Phoenix Police Department
Black Mountain Precinct
33355 N. Cave Creek Rd.

